ABSTRACT

The invention relates to a valve device for controlling the valve tappet of an internal combustion engine of a motor vehicle. In this case, the movement of the valve tappet is generated by contraction/expansion or flexion or stretching of at least one artificial muscle. Furthermore, the artificial muscle can form a gas pressure chamber, by the action of pressure upon which a counterforce can be exerted on the valve tappet. Alternative embodiments of the invention relate particularly to the movement of valve flaps by artificial muscles and to the closing of a valve orifice by an artificial muscle of variable form.